

MISCELLANEOUS NOTES ON NEOTROPICAL FLORA XVII.

NEW SPECIES OF MELIOSMA

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MELIOSMA ECHEVERRYANA Cuatr.n.sp.

Arbor circa 12 m alta frondosa. Rami terminales valde robusti, hornotini angulati denseque tomentosohirsutuli ferruginei vel brunnescentes pilis acutis subflexuosis, densis subpatulis antrorsis distale subadpressis, deinde adulti teretes cortice sublaevi elliptici-lenticellato griseo glabro.

Folia crasse rigideque coriacea spiraliter alterna simplicia petiolata. Lamina (24-)40-53 x (9-)17-23 cm obovata vel obovato-elliptica basim versus attenuata base cuneata acuta, apice rotundata vel obtusa, margine leviter revoluta integerrima sed interdum subtiliter sinuata et minutis dentibus mucroniformibus ad terminaciones nervorum lateralium; adaxialiter lutescente- viridis nitida juvenili sparsis pilis, adulta glabra praeter costam et nervos laterales depressos minute pubescentibus, superficie bullatorugulosa minuto reticulo venorum inter rugas valde impresso; abaxialiter pallide viridi-ochracea in vivo, sicca ferruginea, dense hirto-pilosa pilis patulis vel supatulis pluricellularibus cellula terminali longissima acutaque base conico-tuberculata 0.5-1.5 mm supra nervis ad 2 mm longis; costa validissima eminenti villosa-tomentosa, nervis secundariis prominentibus 23-24 utroque latere parallelis ascendentibus juxta marginem curvatis anastomosatisque, nervis tertiis transversis in amplum reticulum elevatum anastomosatis, venulis minoribus reticulum immersum sed bene conspicuum formantibus, areolis pluribus minutis papillis rotundatis nitidis et parcis pilis patulis munitis. Petiolus robustus (ad 1 cm latus ad basim), adaxiale paulo canaliculatus reliquo teres brunneo-tomentulosus 4-6.5 cm, ad basim

incrassato-pulviniformis.

Synflorescentia thyrsoides-paniculata ad 45 cm longa 22 cm lata. Rami numerosi laxè dispositi patentes ad 13 cm longi sursum gradatim decrescentes. Axis rami ramulique antrorse tomentoso-hirti pilis albis crassiusculis acutis nitidis ca 0.5 mm longis. Flores numerosi in ramulis dense glomeratis glomerulis sessilibus spiciforme aggregatis. Alabastra pallide viridia 1.2-1.5 mm diam, basi 1-2 bracteolis ovato-triangularis vel oblongo-ovatis viridulis marginibus ciliatis, 0.5-0.8 mm longis. Sepala 5, viridia ovata subacuta, dorso glabra, margine ciliata pilis 2-3-cellulatis acutissimis et parcis pilis crassiusculis obtusis vel capitato-glandulosis. Petala 3 suborbiculata alba glabra convexa integra, interdum ciliata, basi minute staminodio squamoso connato, 2 petala interiora valde brevia lineari-oblonga ad basim utrumque cum stamen adnato. Stamina duo 1 mm longa filamentum rigido erecto glabro, connectivo crasso, thecis duabus globosis albis nitidis unilocularibus dehiscentibus. Ovarium obsoletum. Flores in specimen immaturi. Fructus drupaceus nigro-violaceus subglobosus basi paulo asymmetricus, 24-26 x 21-22 mm, in sicco (herbario) 19-21 x 17-18 mm, exocarpio succulento ca. 5 mm crasso, endocarpio durissimo 14-15 x 12.5-14.5 mm.

Typus: Colombia, Tolima, Cordillera Central: Hoya del rio Combeima, Cañon del Combeima: El Silencio, 2600-2800 m, bosque en vias rápidas de destrucción, árbol 12 m, hojas grandes coriáceas verde amarillento oscuro haz, pálidas envés, fruto negruzco 22 mm diám, 3 Mar 1969, J. Cuatrecasas & R. Echeverry 27633 (holotype US, isotype COL).

Meliosma echeverryana, dedicated to the founder of the "Humboldt Botanical Garden of Tolima" in Ibaguè, Prof. Raul Echeverry, co-collector of the type specimens, is closely related to M. bogotana Steyerl. The Tolima plant differs essentially by having the leaves thicker and firmer coriaceous, and is provided usually with shorter hairs. More important is that the

leaf-lamina is adaxially glabrous, bright, rugose, minutely bullate, with the reticular venation strongly depressed between the rugae, being the minor reticulum well marked but flat abaxially. In *M. bogotana* the reticulum is raised on the upper surface of the blade and very prominent in the underneath, in addition the number of lateral nerves is lower in this species.

MELIOSMA LINDAE Cuatr. sp. nov.

Arbor circa 5 m alta. Ramuli terminales dense hirsutis pilis rigidis pluricellularibus antrorsis subapressis vel subpatulis.

Folia alterna chartacea petiolata. Lamina 18-32 x 6-9 cm, lanceolata utrinque acuta, integra vel parce sinuata; adaxialiter viridis pilis flexuosis sparsis, ad costam et nervos laterales filiformes minute pilosa vel tuberculosa; subtus pallidior costa prominenti valde hirta pilis flavis 0.5(-1) mm ascendentibus vel patentibus, nervis secundariis parallelis 21-22 utroque latere anguste prominentibus profuse hirtis, nervis minoribus in reticulum plus minusve elevatum anastomosatis, areolis valde papillosis papillis obtusis nitidis et raris pilis. Petioli 2.6-3.8 cm subtomentosi pilis antrorsis dense subapressis.

Synflorescentia thyrsosideo-paniculata 24 x 18 cm, proximaliter foliati-bracteata, base sterile circa 6 cm longa. Rami ramulisque divaricati, valde patentes. Axis rami et ramusculi hirsuto-tomentosi viridibrunnescenti. Alabastra obovoidea 1.5-2 mm diam. Flores sessiles vel subsessiles congeste glomerati ad ramusculis spicati. Bracteolae ovoideae triangulares ciliatae 1-1.5 x 0.8-1.5 mm. Sepala 5 viridia quincuncialia ovoidea subacuta glabra sed ad marginem ciliata 1.2-1.5 x 1 mm, ciliis 2-3 cellulis uniseriatis acutis 0.1-0.3 mm praeterea parvis pilis crassioribus glandulato-capitatis. Petala alba vel rosea 3 orbicularia vel rotundato-obovata glabra in alabastro valde convexa anthesi plana 2.4-2.2 x 1.9-2.1 mm base utrumque cum staminodio minute squamato

adnato. Petala 2 interiora minora elliptico-oblonga subacuta 1.5-1.9 x 0.5-0.7 mm utrumque cum stamine basim connato. Stamina filamentum plano rigido erecto glabro 0.8-1.2 mm. Antherae connectivo crassotheccis duobus lateralibus sphaeroidalis albis nitentibus 0.3 mm diam. Ovarium pyriforme 0.8 mm long bicellatum, stylo 0.2-0.3 mm bilobato.

Typus: Colombia, Antioquia: mun. Caldas, Vereda La Corrala, finca La Zarza, 2440 m, "Arbol 5 m, doblado, en sombra del bosque húmedo muy perturbado, flores rosadas." 14 Apr 1987, Linda Albert de Escobar & Patricia Velasquez 7527, holotype HUA.

Meliosma lindae is similar to M. litlei which differs mainly by having a lower number of glabrous secondary nerves. It approaches also to M. boliviana which has the leaf-blade rather obovate-oblong, obtuse. M. lindae differs also by the densely subhirsute or sutomentose inflorescence and for the more carnosae petals. The species is dedicated to the first collector of the plant, Mrs. Linda Albert Escobar, Professor of Botany at the University of Antioquia in Medellin, Colombia.

MELIOSMA WURDACKII Cuatr. sp. nov.

Arbor circa 25 m alta ramis hornotinis pilosis vetustis glabratis.

Folia alterna simplicia breviter petiolata. Lamina chartaceo-membranacea viridis vel leviter brunnescens, elliptica subspicem breviter angustata subite acuminata, tertia parte proximali basim versus gradatim attenuata base cuneata, 26-33 x 9.5-12.3 cm plus acumine subacuto 1.6-2 cm longo; margine subplana integra; adaxialiter viridis glabra, costa anguste impressa, nerviis secundariis leviter impressis, venulis minoribus leviter elevatis subobsoletisque; abaxialiter subglabra viridis sed nervatione principali brunnescenti, costa valde robusta tereti striolulata, nervis secundariis 14-15 utroque latere, angulo 55-60° divergentibus, marginem versus arcuatis

anastomosantibus, mediis 2-3.7 cm inter se distantibus, nervis tertiis prominentibus brunnescentibusque patulis laxi-anastomosatis, venulis graciliter reticulum albidum prominulum formantibus; ad nervos, parcissimis minutis pilis adpressis fere obsoletis praedita. Petiolus 1.3-1.6 cm longus ad modum pulvinulum incrassatus. Folia subtendentia cum proximalia similima sed minora.

Synflorescentiae axillares subterminales et terminales, 5-20 cm longae, racemiforme paniculatae. Axis erectus rigidus quam folia subtendentia aequalis vel brevior, ramis numerosis alternis patulis 1-3 cm longis sursum parce ramulosis. Flores albi numerosi glomerati, glomerulis ad ramos et ramusculos sessilibus racemiforme vel spiciforme dispositis. Axis rami et ramusculi copiose vel dense minuteque hirsuti pilis rigidis acutis patentibus 0.2-0.4 mm, interdum in parte proximale axis longioribus. Alabastra rotundata alba circa 1.5 mm diam. Bracteae duae ovata-suborbiculatae concavae 1.2-1.1 mm longae et latae glabrae, margine laxi-ciliata excepta. Sepala quincunciale disposita basi breviter coalita persistentia, ovato-orbiculata vel intima ovato oblonga, 1.2-1.5 mm longa, glabra margine excepto parce ciliata. Petala glabra 3 exteriora 2.2 x 2.2 mm altera 2 x 2 et 1.8 x 1.8 m orbicularia margine integra, crossiuscula basi cum staminodia membranacea oblonga apice dentata, 0.5-0.8 mm longa. Petala 2 interiora breviora oblonga 1-1.2 mm longa apice bifido. Stamina 2, filamenta crassa complanata 1 mm longa base cum petalis interioribus coalita. Anthera connectivo crassissimo 2 thecas laterales orbiculares albas nitidas patentes ferens. Ovarium oblongum biloculare. Stylus 0.4 mm bifidus.

Typus: Peru, Dep. Loreto, Prov. Alto Amazonas: Rainforest on lower north slopes of Cerros Campanquí at Pongo de Manseriche, right bank of Río Marañón, 300-500 m, tree 25 m, flowers white, 19-21 Oct 1962, J.J. Wurdack 2342, holotype in US.

Meliosma wurdackii is related to M. schlimii and M.

violacea, both of which differ by having larger number of lateral nerves; it is also closely related to M.littlei and M.panamensis, from which M.wurdackii differs, as well from the other two mentioned species, by the almost unique character of having the petiole reduced to a thickly pulvinate base. Other differences can not be establish due the lack of flowers in the material at hand of M.panamensis and M.littlei.

REFERENCES

Cuatrecasas, J. & Idrobo, J.M. 1955. El Género Meliosma en Colombia. *Caldasia*, 7: 187-211 with 9 plates.